RADISHCHEV, V. P. (DECEASED)

PA 54T83

USSR/Physics Sep 1947
Equilibrium Diagrams
Graphic Methods

"The Use of Fourth-Dimension Geometry for Constructing Physical-Chemical Equilibrium Diagrams," V. P. Radishchev (Deceased), 31 pp

"Izv Sektora Fiz-Khim Analiza" Vol XV

Discusses use of four-dimensional diagrams. Gives general description of term, such as linear projections and orthogonal projection, drawing diagrams on basis of suggested methods. Explains a polytherm for four-dimension system Pb - Sn - Bi - Cd, and the polythermic development of carnallite third point in

LC 54T83

USSR/Physics (Contd) Sep 1947

four-dimension system H_2O - NaCl - KCl - $MgCl_2$. Concludes with Russian and German bibliography.

LC 54T83

External components of the fusion diagram of the quaternary reciprocal system NH_4, K||Cl, NO_3, H_2PO_4. A. G. Bergman, V. P. Radishchev, I. N. Nikonova, V. N. Sveshnikova, E. B. Shternina, and M. A. Yatsuk. *Izvest. Sektora Fiz.-Khim. Anal., Inst. Obshchei i Neorg. Khim., Akad. Nauk S.S.S.R.* 13, 157-99(1947).—Studied were the quaternary systems of the 6 salts. In the system KNO_3-KCl was observed the compd. KNO_3.KCl, m. 360° (decomp.). This compd. had a polymorphic transformation at 255°. At the eutectic point 320° it contd. 6 mol. % of KCl and at the transition point 17.4 mol. % KCl. In the system NH_4NO_3-KNO_3 was observed the compd. $2NH_4NO_3.KNO_3$, m. 170°. There were indications of the existence of a compd. richer in KNO_3. The eutectic of the double salt was at 156.7°, at which point it contd. 11.3 mol. % of KNO_3. At the transition point 170.5° it contd. 10.5 mol. % of KNO_3. In the eutectic, 147°, system NH_4NO_3-$NH_4H_2PO_4$ was observed a wide range of $NH_4H_2PO_4$ solid solns. At the eutectic point this system contd. 12.5 mol. % of $NH_4H_2PO_4$. The eutectic of the system KNO_3-KH_2PO_4 was at 244.5° and contd. 29.2 mol. % of KH_2PO_4. In the system KCl-KH_2PO_4, the eutectic point was at 280° when it contd. 5.5 mol. % of KCl. The system NH4Cl-$NH_4H_2PO_4$ had a eutectic point at 184° when it contd. 12.2 mol. % of NH4Cl. $NH_4H_2PO_4$ and KH_2PO_4 formed a continuous series of solid solns. The ternary system NH_4NO_3-$NH_4H_2PO_4$-NH_4Cl had a eutectic point at 131.5° when it contd. NH_4NO_3 80.25, $NH_4H_2PO_4$ 5.75, and NH_4Cl 14 mol. %. The eutectic point of the system KNO_3-KH_2PO_4-KCl was at 235° at which point it contd. KNO_3 33.75, KH_2PO_4 58.75, and KCl 7.5 mol. %. Since within this system KNO_3.KCl formed, it had a transition point at 270° at which it contd. KNO_3 58.75, KH_2PO_4 31.75, and KCl 9.5%. The reversible system K, NH_4 || Cl, NO_3 could be studied only up to 200°. This system had 3 nonvariant points: eutectic at 131.0° when it contd. NH_4NO_3 75.2, NH_4Cl 14.25, and KNO_3 10.55%, a transition point at 145.5° when it contd. NH_4NO_3 70.15, NH_4Cl 13.0 and KNO_3 16.85%, and a transition point at 135.0° when it contd. NH_4NO_3 74.50, NH_4Cl 13.75, and KCl 11.75%. The reversible system K, NH_4 || Cl, H_2PO_4 was studied up to 400°. The liquidus consisted of 2 areas of crystn. of continuous solid solns. of (K, NH_4)Cl and (K, NH_4)-H_2PO_4. The curve of combined crystn. had a min. at 180°. The irreversible system K, NH_4 || NO_3, H_2PO_4 had a stable diagonal representing $NH_4H_2PO_4$-KNO_3 dividing the system into 2 ternary areas. The diagonal has a eutectic at 188° where it contd. 33% of KNO_3. One of the ternaries, KNO_3-KH_2PO_4-$NH_4H_2PO_4$, had a liquidus divided by a continuous curve into 2 areas of continuous solid solns. (K, NH_4)H_2PO_4 and KNO_3. This curve had no min. The other ternary, KNO_3-$NH_4H_2PO_4$-NH_4NO_3, had a transition point at 150° where it contd. NH_4 87.0, K 13.0, and NO_3 90%. This point is formed by the area of $KNO_3.2NH_4NO_3$ and the eutectic of 130° at which point (eutectic) the compn. is NH_4 83.75, K 6.25, and H_2PO_4 9%. None of the studied salts formed hydrates, yet H_2O affected considerably the equil. Fusion diagram of

the quaternary reciprocal system NH_4, K || Cl, NO_3, H_2PO_4. *Ibid.* 30–33.—The fusion diagram of the system was studied up to 180° in the region adjacent to NH_4NO_3. Within this region were crystd. NH_4NO_3, $2NH_4NO_3.KNO_3$, KNO_3, $NH_4(K)Cl$, and $NH_4(K)H_2PO_4$. These spaces made contact at the eutectic point approx. 123° and at the transition point approx. 134°. At the eutectic point the approx. compn. was NH_4 90.5, K 9.5, Cl 13.75, H_2PO_4 3.75, NO_3 82.50 ion %, and the solid phases $NH_4(K)Cl$ + $NH_4(K)H_2PO_4$ + NH_4NO_3 + $2NH_4NO_3.KNO_3$. At the transition point the approx. compn. was NH_4 88.0, K 14.0, Cl 13.25, H_2PO_4 4.80, NO_3 81.95 ion %, and the solid phases $2NH_4NO_3.KNO_3$ + $NH_4(K)Cl$ + $NH_4(K)H_2PO_4$ + KNO_3. Also studied was the effect of addn. of NaCl and KH_2PO_4 on the m.p. Addn. of NaCl lowered the quaternary eutectic point, 123°, by 9°. Addn. of KH_2PO_4 lowered the eutectic point, 112°, of the ternary system NH_4, Na || Cl, NO_3 by 9°.

M. Hoseh

RADISHCHEV, V. P.

Chem (3)

Chemical Abst.
Vol. 48 No. 4
Feb. 25, 1954
General and Physical Chemistry

Crystallization volumes in the 5-complex mutual system of fluorides, chlorides, bromides, and iodides of potassium and sodium. A. G. Bergman, V. P. Radishchev, and N. S. Dombrovskaya. *Doklady Akad. Nauk S.S.S.R.* 77, 811–13 (1951).—Data were obtained on the crystn. temps. in this complex system and are presented in the form of a complex triangular prism, having a tetrahedron at each of its 2 ends, one representing the system Na||F,Cl,Br,I; the other K||F, Cl,Br,I (cf. *C.A.* 44, 9227*i*). Results were obtained for each of the 8 vertexes (pure components), 16 edges (binary mixts. of the type NaCl-NaBr), 8 triangular planes (ternary systems of the type Na||Cl,Br,I), 6 rectangular planes (ternary reciprocal systems of the type Na,K||Cl,Br), the 2 tetrahedral ends, and 4 quaternary prismatic inner surfaces of the type Na,K||Cl,Br,I. The interactions among the salts can be summarized by 3 equations: (1) KF + KCl + KBr + 3NaI = NaCl + NaBr + NaF + 3KI; (2) KF + KCl + NaBr + NaI = NaF + NaCl + KBr + KI; and (3) 3KF + NaCl + NaBr + NaI = 3NaF + KCl + KBr + KI.

Arild J. Miller

AE 7-28-54

RADISHCHEV, V.P.

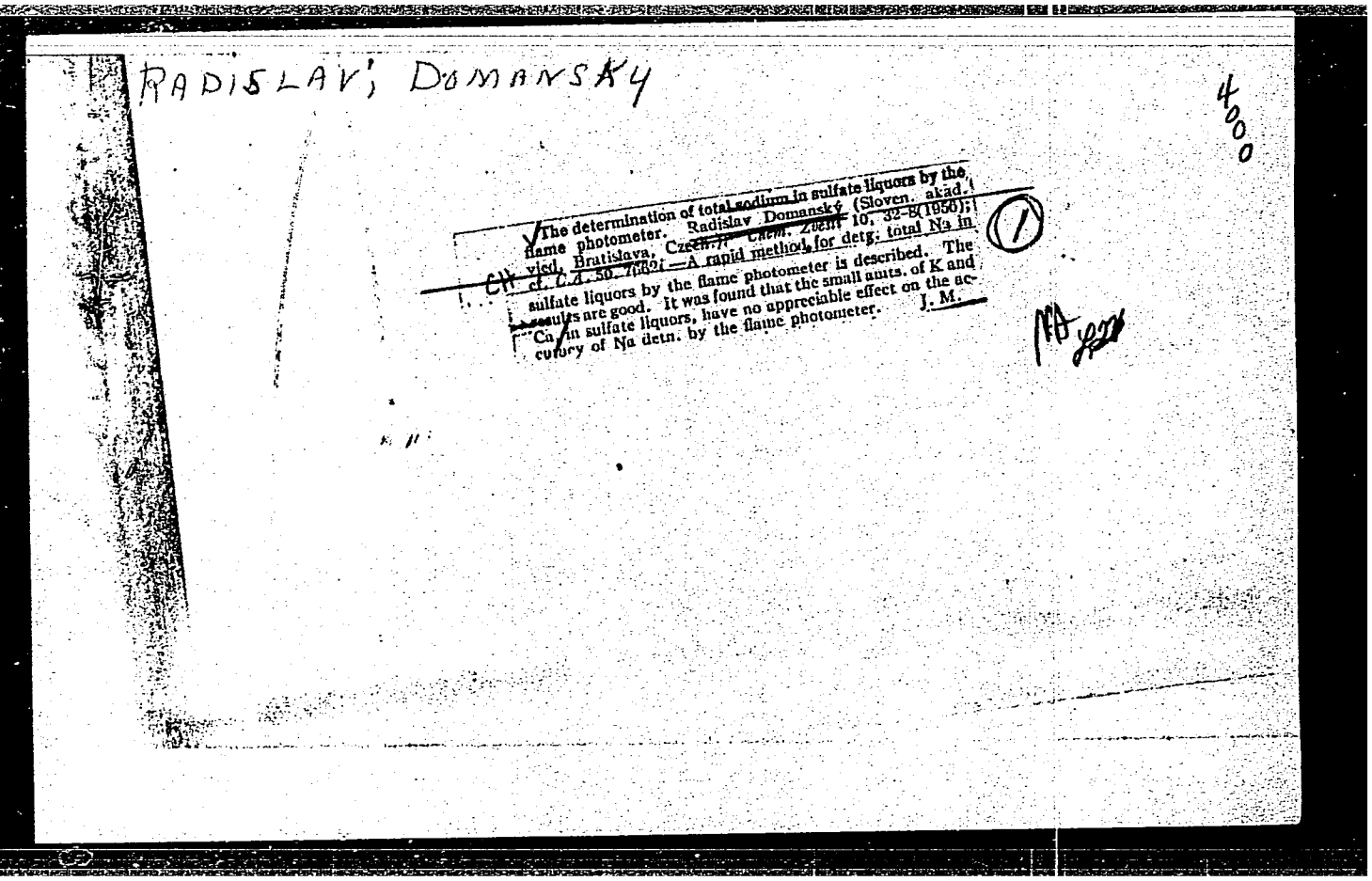
Theoretical study of multicomponent reciprocal systems. Izv.Sekt. fiz.-khim.anal. 22:33-62 '53. (MLRA 7:5)

1. Institut obshchey i neorganicheskoy khimii im. N.S.Kurnakova Akademii nauk SSSR. (Systems (Chemistry))

RADISHCHEV, V.P.

Theoretical study of multicomponent reciprocal systems. Izv.Sekt. fiz.-khim.anal. 23:46-60 '53. (MLRA 7:1)

1. Institut obshchey i neorganicheskoy khimii im. N.S.Kurnakova Akademii nauk SSSR. (Systems (Chemistry))



RADISLAV DOMANSKÝ

4000

The determination of total sodium in sulfate liquors by the flame photometer. Radislav Domanský (Sloven. akad. vied, Bratislava, Czech.) Chem. Zvesti 10, 32-8(1956); cf. C.A. 50, 7089i.—A rapid method for detg. total Na in sulfate liquors by the flame photometer is described. The results are good. It was found that the small amts. of K and Ca in sulfate liquors, have no appreciable effect on the accuracy of Na detn. by the flame photometer. J. M.

(1)

RADISZEWSKI, K.

RADISZEWSKI, K. The chords dividing the perimeter of an oval into two equal parts. p. 93

Vol. 8, 1954
ANNALES, SECTIO A: MATHEMATICA
SCIENCE
Lublin (City) Poland

So: East European Accession, Vol. 6, no. 2, Feb. 1957

FUZI, M., ALFOLDY, Z.; KISZEL, J.; RADITZ, I.

Leptospira infection of field rodents in a part of Western Hungary. Acta microb. hung. 4 no.2:155-156 1957.

1. Mikrobiologisches Institut der Medizinischen Universitat, Budapest.

(LEPTOSPIROSIS, epidemiol.
in Hungary, etiol. role of infect. in field rodents in an epidemic (Ger))
(RODENTS, dis.
leptospirosis in field rodents, etiol. role in an epidemic in Hungary (Ger))

RA[illegible], M., [illegible], [illegible].

Behavior of thymus transplanted to chorioallantoic membranes. In English, p. 67, (ACTA MICROBIOLOGICA, Budapest, Hungary). Vol. 5, No. 1/2, 1958.

SO: Monthly List of East European Accessions, (EEAL) LC, Vol. 6, No. 5, May 1957, Uncl.

RADITZ, Magdolna; TORO, Imre

The behavior of thymus transplanted into chorioallantoic membrane.
Kiserletes orvostud. 6 no.6:499-506 Nov 54.

1. Budapesti Orvostudomanyi Egyetem Szovet-es Fejlodestani Intezete.

(THYMOS, transpl.
chorio-allantois in chick embryo, growth & regen.)
(EMBRYO
dhick, thymus growth after transpl. to chorio-allantois)
(TRANSPLANTATION, exper.
thymus to chorio-allantois in chick embryo, growth & regen.)

HARTZ, P.; [illegible], T.

"Effect of digitalis on nerveless heart tissue." In English. p. 71.

ACTA MEDICA. (Magyar Tudomanyos Akademia). Budapest, Hungary, Vol. 9, No. 1, 1956.

Monthly list of East European Accessions (EEAI), LC, Vol. 6, No. 9, August 1957.
Uncl.

POSALAKY, Zoltan; RADITZ, Magdolna; TORO, Imre; BARKA, Tibor

Nucleic acid metabolism in livers transplanted on chorioallantoic membrane. Kiserletes orvostud 9 no.5-6:589-595 Oct-Dec 58.

1. Budapesti Orvostudomanyi Egyetem Szovet-Fejlodestani Intezete.
(LIVER, metab.
nucleic acids in livers cultivated on chorioallantoic membranes (Hun))
(NUCLEIC ACIDS, metab.
liver, metab. in livers cultivated on chorioallantoic membranes (Hun))

RADIUKIEWICZ, S.B.

Research in child and adolescent hygiene in Poland. Cesk. hyg. 4 no.5:313 Je'64

1. Ministerstvo zdravotnictvi, Varsava.

[redacted]

[redacted] IWICZ, J. D.

[redacted] Ministry of Health (Ministerstwo Zdrowia), Warsaw [redacted]

[redacted], Neuropsychiatria Slovenska, No 5, 1964, p 313

"Research in Child and Adolescent Psychiatry in Poland."

15 (6)
AUTHOR: Radivilin, L. K. SOV/131-59-9-11/12

TITLE: News in Brief. Scientific-Technical Conference in the Podol'sk Works of Refractories

PERIODICAL: Ogneupory, 1959, Nr 9, pp 431-432 (USSR)

ABSTRACT: This conference was arranged in May 1959 for the purpose of co-ordinating scientific and experimental work concerning the production of pure oxide products and of electric heaters. It was attended by 130 representatives from 40 scientific research organizations and enterprises. D. S. Rutman, Chief Engineer of the Podol'sk Works reported on the tasks at the works for the perfection of the technology of oxide products and of electric heaters. The following scientists spoke about investigation results and the development in the technology of refractories made of pure oxides: I. V. Vinogradova, E. K. Keler, V. S. Gorodetskiy, D. N. Poluboyarinov, G. P. Kalliga, R. Ya. Popil'skiy, O. M. Margulis, A. I. Avgustinik reported on the technology and the use of cermets in the industry. V. Ya. Pirozhnikov spoke about the use of oxide products in the metallurgical industry, and M. S. Koval'chenko reported on the manufacture of products from viscous compounds. The technology

Card 1/2

News in Brief. Scientific-technical Conference in the Podol'sk Works of Refractories SOV/[illegible]-59-9-11/12

of the electric heaters was the object of further reports by L. K. Radivilin, N. I. Voronin, R. I. Bresker, V. L. Balkevich, A. Ya. Artamonov, and P. S. Kislyy. V. V. Baron spoke about investigations in the field of the electric heaters, made of molybdenum-disilicide. The Conference arrived at the conclusion that the development of the technique of high temperatures calls for a continuous perfection of the pure oxide products and of the electric heaters. The research work carried out at present does not meet the actual requirements, and a closer co-ordination of the work is indispensable. It was therefore decided to set up such a co-ordination organization.

ASSOCIATION: Podol'skiy zavod ogneupornykh izdeliy (Podol'sk Works for Refractories)

Card 2/2

RADIVILIN, V.K.

Improving the quality and increasing the strength of refractory materials. Biul. tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh. inform. 17 no.12:49-50 D '64. (MIRA 18:5)

RADIVILKO, S., nachal'nik uchastka No.6.

Be efficient in the use of mine timber. Mast.ugl. 3 no.2:12-13 F '54. (MLRA 7:3)
(Mine timbering)

RADIVOEVA, L., inzh.

Regeneration of cobalt cake xanthogenate into sodium zanthogenate. Min delo 17 no.5:35-37 My '62.

1. Olovno-tsinkov zavod, Kurdzhali.

[illegible], ...; [illegible], G., Dr.; [illegible] S, Dr.

Some indications furnished by [illegible] for the diagnosis and [illegible] of coronary [illegible]. [illegible] Intern. (Bucur.) 16 no.11: 1335-1342 N '64

1. Lucrare efectuata in Clinica [illegible] medicala, [illegible], Timisoara.

RADIVOJ, A.

Radiological decontamination of weapons and technical materials, p. 73

VOJNI GLASNIK (Jugoslavenska narodna armija) Beograd, Yugoslavia.
Vol. 12, no. 1, Jan 1958

Monthly List of East European Accessions EEAI LC, Vol. 8, no. 6, June 1959
Uncla.

PURAC, Ljubomir, sanitetski pukovnik, doc. mr. ph.; RADIVOJEVIC, Bogdan, sanitetski potpukovnik, mr. ph.; SARCEVIC, Mirjana, zdravstveni tehnicar.

A simple and precise method for the determination of urea. Vojnosanit. pregl. 22 no.3:162-165 Mr'65.

1. Centralna medicinsko-hemijska laboratorija, Vojnomedicinska akademija u Beogradu.

RADIVOJEVITCH, Dushanka V. and Petar M. Martinovitch

Long-Term transplants of infantile rat pituitaries cultivated in vitro and grafted in the anterior eye chamber of young cats.

Both are affiliated with the Boris Kidric Institute for Nuclear Sciences, Postanski Fah 522, Beograd, Yugo.

SO: Nature, Vol. 175, No. 4450, Feb. 12, 1955, Unclas.

RADIVOJEVIĆ, DUŠANKA V.

3

THE RESPONSE OF ADRENAL GLAND OF INFANTILE RATS TO STRESS EFFECTS OF X-RADIATIONS. Djurdjina S. Sladić, Miroslava R. Pavlović, and Dušanka V. Radivojević. Bull. Inst. Nuclear Sci. "Boris Kidrich" (Belgrade) 6, 199-202(1956) Mar.

New born rats up to 10 days of age do not react to stress effected by x rays. Fall in concentration of cholesterol, 3 hrs following x irradiation, was observed for the first time in animals 10 days old. Under our experimental conditions, adrenal ascorbic acid content begins to fall only in older infant rats i.e. after 13 days of age. Furthermore, this decline was gradual and paralleling the age. An exposure of animals to the same experimental conditions causes a different adrenal response with respect to adrenal ascorbic acid and cholesterol in animals 10 to 13 days old. (auth)

SAVKOVIC, Nada V.; RADIVOJEVIC, Dusanka V.; HAJDUKOVIC, Srdan I.

The protective effect of cysteamin upon the postirradiation sterility of young rats exposed to sublethal doses of X-irradiation and somatic changes in the first generation. Bul Inst Nucl 10:107-111 Mr '60. (EEAI 10:5)

1. Institute of Nuclear Sciences "Boris Kidrich" Laboratory of Radiobiology.
(Aminoethanethiol) (X rays) (Sterility)
(Radiobiology)

SAVKOVIC, Nada V.; RADIVOJEVIC, Dusanka V.; JOVANOVIC, Milan M.; HAJDUKOVIC, Srdan I.

The protective effect of AET upon survival of young rats exposed to sublethal and lethal doses of X-rays. Bul Inst Nucl 10:113-117 Mr '60. (EEAI 10:5)

1. Institute of Nuclear Sciences "Boris Kidrich" Laboratory of Radiobiology.
(Aminoethylthiopseudourea) (X rays) (Radiobiology)

SAVKOVIC, N.V.; RADIVOJEVIC, D.V.; HAJDUKOVIC, S.I.; RADOTIC, M.M.; POPOVIC, S.H.; KARANOVIC, J.; Technical assistance MALCIC, K.; BRADIC, M.

Histological analysis of testes in infant rats irradiated locally or all over the body with X rays. Bul Inst Nucl 12:145-147 O '61.

1. The Institute of Nuclear Sciences "Boris Kidrich," Department of Radiobiology, Vinca.

SLADIC-SIMIC, S.; PAVIC, D.M.; RADIVOJEVIC D.V.

Use of P32 in the study of the effect of x-rays on functional activities of the adrenal gland. Prim. radioaktiv. izotop. 2 no.3:22-25 D '61.

1. Institut za nuklearne nauke "Boris Kidric" Vinca.
(RADIATION EFFECTS) (PHOSPHORUS ISOTOPES)
(ASCORBIC ACID) (CHOLESTEROL) (ADRENAL CORTEX FUNCTION TESTS)
(HYPOPHYSECTOMY)

RADIVOJEVIC, D.

Local inhibition of the postirradiation epilation in young rats by cysteamine. Bul sc Youg 7 no.1/2:12 F-Ap '62.

1. Institut "B. Kidric," Vinca, Beograd.

SAVKOVIC, M.; RADIVOJEVIC, D.; HAJDUKOVIC, S.; MALCIC, K.

Effect of local irradiation on the reproductive ability of infant rats. Bul sc Youg 7 no.1/2:13 F-Ap '62.

1. Institut "B. Kidric," Vinca, Beograd.

*

[illegible], M.

A plastic explosive and its use for demolition. p. 606.

VOJNO-TEHNICKI GLASNIK. Beograd, Yugoslavia. Vol. 3, no. 11, Nov. 1955.

Monthly List of East European Accessions (EEAI) LC, Vol. 5, no. 9, Sept. 1956.

Uncl.

[illegible]

The [illegible] of [illegible] n. p. 52.
(USAMM, Vol. 5, No. 7, July 1957)

Source: Monthly List of East European Accessions (MEAL) LC Vol. 6, No. 12, Dec. 1957
Uncl.

RADIVOJEVIC, Milivoje

Livestock breeding in Zagubica and its environs. Glas Srp geogr dr 42 no.2:169-172 '62.

DORDEVIC-CAMBA, D., dr.; RADIVOJEVIC, R.

Considerations on a case of subcapsular hematoma of the liver. Voj. san.pregl., Beogr. 17 no.11:1182-1183 N '60.

1. Medicinski fakultet u Beogradu, Prva hirurska klinika.
(HEMATOMA case reports)
(LIVER DISEASES case reports)

YUGOSLAVIA

Stanislav SUKUROV and Radivoje RADIVOJEVIC, First Surgical Clinic of Medical Faculty (I. Hirurska klinika Medicinskog fakulteta), Head (upravnik) Prof Dr Bogdan KOSANOVIC, University of Belgrade.

"Cicatrician Stenosis of the Stomach."

Belgrade, Srpski Arhiv za Celokupno Lekarstvo, Vol 90, No 5, May 1962, pp 397-362.

Abstract [French summary modified]: Severe gastric fibro-stenosis followed accidental swallowing of very small quantity of quaternary ammonium preparation "Lesepsol" in 26-year-old woman, eventually requiring subtotal subdiaphragmatic gastrectomy with gastro-duodenal anastomosis, slow recovery because of refractory anemia. The pertinent literature is reviewed. Two rentgenograms, 2 photographs of operative specimen, 11 Western references.

1/1

MILOSEVIC, Bosiljka; DINULOVIC, Dusan; RADIVOJEVIC, Radivoje

Apropos of a case of external migration of the ovum. Srpski arh. celok. lek. 91 no.3:323-326 Mr '63.

1. Ginekolosko-akuserska klinika Medicinskog fakulteta Univerziteta u Beogradu Upravnik: prof. dr Bosiljka Milosevic I hirurska klinika Medicinskog fakulteta Univerziteta u Beogradu Upravnik: prof. dr Bogdan Kosanovic.
(OVUM) (FALLOPIAN TUBES) (OVARY)
(PREGNANCY, TUBAL)

RADIVOJEVIC, R.

"Maintenance of impregnated railroad ties" (p.88)
ZELEZNICE. (Jugoslovenske zeleznice) Beograd. Vol. 10. no. 3, March 1954

SO: East European Accessions List. Vol. 3, no. 8, August 1954

RADIVOJEVIO, Radmile (Eng.)

"The use of mechanical methods for better impregnation of railway sleepers"

SO: ZELEZNICE No. 6, Year XI, Junel955

RADIVOJEVIC, R.

RADIVOJEVIC, R. New standards for cut pine used in railroad cars. p. 374.

Vol. 11, No. 8, Aug. 1955
ZELEZNICE
TECHNICOGY
Beograd, Yugoslavia

So: East European Accessions, Vol. 5, May 1956

RADIVOJEVIC, S.

Drying cut pine for repairing railroad cars. p.336. ZELEZNICE. Beograd. Vol. 11, no. 9, Sept. 1955.

SOURCE: East European Accessions List (EEAL), Library of Congress Vol. 5, No. 6, June 1956

RADIVOJEVIC, R.

Using plywood in railroad cars. p. 26.
(Zeleznice, Vol. 13, No. 4, Apr. 1957, Beograd, Yugoslavia)

SO: Monthly List of East European Accessions (EEAL) Lc. Vol. 6, No. 8, Aug 1957, Uncl.

RADIVOJEVIC, R.

Use of mechanical methods for better impregnation of railroad ties. p. 220
ZELEZNICE. Beograd.
Vol. 11, no. 6, June 1955

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, no. 2, Feb. 1956

RADIVOJEVIC, Radmilo, inz.

Impregnation of nondried railroads sleepers. Zeleznice Jug 15 no.8:19-23 Ag '59.

RADIVOJEVIC, R., dipl. inz.

A new variant of the application of the double Riping method in the impregnation of beech ties. Zeleznice Jug 20 no.5: 30-32 My'64

RADIVOJEVIC, Radmilo, ing. (Beograd)

Modern methods of the impregnation of spruce and fir electric [illegible]-mission poles. Tehnika Jug 16 no.12:2203-2208 '61.

1. Savetnik Generalne direkcije Jugoslovenskih zeleznica, Beograd.

Nuclear weapons and military training. p. 460. VOJNO-TEHNICKI GLASNIK. Beograd.

Vol. 3, No. 7, July 1955

[illegible]: East European Accessions List, (EEAL), Library of Congress, Vol. 4, No. 12, December 1955

DEDIC, Stojan; RADIVOJEVIC, Stevan; MARKOVIC, Milan; KASTRATOVIC, Milica

Results of radiological treatment of neoplasms of the uterine neck and of parametrium. Srpski arh. celok. lek. 85 no.5:522-534 Mar 57.

1. Radioloski institut Medicinskog fakulteta u Beogradu. Upravnik: Bosnjakovic.

(CERVIX NEOPLASMS, ther.
radiother.)
(UTERUS NEOPLASMS, ther.
radiother. of cervix & parametrium cancer (Ser))

GROZDANIC, Sima, dr.; RADIVOJEVIC, Vidoje

Appearance of polygyny in Polistes gallicus. Zbor prir Mat srp 25:51-57 '63

1. Institute of Biology, Belgrade.

CELAP, Milenko B.; RADIVOJEVIC, Zivota M.

A new method for the separation of the elements of the analytic group I by the paper chromatography. Gl.hem.dr. 23 /24 no.1/2: 59-66 '58/59. (EEAI 9:5)

1. Faculaty of Science, Institute of Chemistry, Beograd.
(Methanol) (Silver) (Nitric acid) (Thallium)
(Chromatography) (Lead) (Mercury)

CEMERIKIC, Mihailo; KOSTIC, Petar, dr., prof.; RADIVOJEVIC, Zoran

A case of hemorrhagic syndrome during the course of labor caused by premature separation of the placenta and afibrinogenemia. Srpski arh. celok. lek. 89 no.9:1055-1058 S '61.

1. Ginekolosko-akuserska bolnica u Beogradu. Upravnik: prof. dr Petar Kostic.

(AFIBRINOGENEMIA in pregn) (LABOR compl)
(ABRUPTIO PLACENTAE compl)

RADIYEVSKIY, M., inzh.-ekonomist

Method for calculating norms for unfinished production in the machine-tool industry. Fin.SSSR 37 no.3:54-58 Mr '63. (MIRA 16:4)

(White Russia--Machine-tool industry--Production standards)

RADKEVICH, A. .

Radkevich, A. I. - "The outlook in the development of cultivating the oak silkworm in the Belorussian SSR," Doklady sessii uz. akad. s.-kh. nauk im. Lenia, 194[illegible], Issue 2, p. 41-44

SO: U-.355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949.)

USSR / Farm Animals. Silkworm. Q

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40576.

Author : Radkevich, A. I.
Inst : Not given.
Title : Experience in the Industrial Rearing of the Oak-Feeding Silkworm in the Kolkhozes of Poles'ye of the Belorussian SSR.

Orig Pub: Uch. zap. Vitebskiy gos. ped. in-t, 1956, vyp. 5, 95-109.

Abstract: Great potentialities exist in the Belorussian Poles'ye for the development of sericulture, because in this region vast areas, overgrown with dwarf oak scrub, which is a feeding base for the larvae of the oak-feeding silkworm, are still preserved. The climatic conditions

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RADKEVICH, A.I.

Weevils of the family Bruchidae occurring in White Russia as pulse pests. Vestsi AN BSSR Ser. biial. nav. no.2:111-114 '63
(MIRA 17:3)

RADKEVICH, A.K.

Ways for encouraging active participation of students in physics lessons. Fiz. v shkole 20 no.5:88-89 S-O '60. (MIRA 13:11)

1. 2-ya srednyaya shkola, g.Nizhnyaya Tura.
(Physics--Study and teaching)

RADKEVICH, A.N.

Discurs the communist principles in training students of medical schools. Fel'd. i akush. 28 no.11:54-58 N'63 (MIRA 16:12)

1. Iz Meditsinskogo uchilishcha, Pervomaysk, Nikolayevskaya oblast'.

RADKEVICH, A.P.

Connection between theory and practice in the learning process. Fel'd. i akush. 26 no.10:54-59 O '61. (MIRA 14:11)

1. Pervomayskoye meditsinskoye uchilishche.
(MEDICINE--STUDY AND TEACHING)

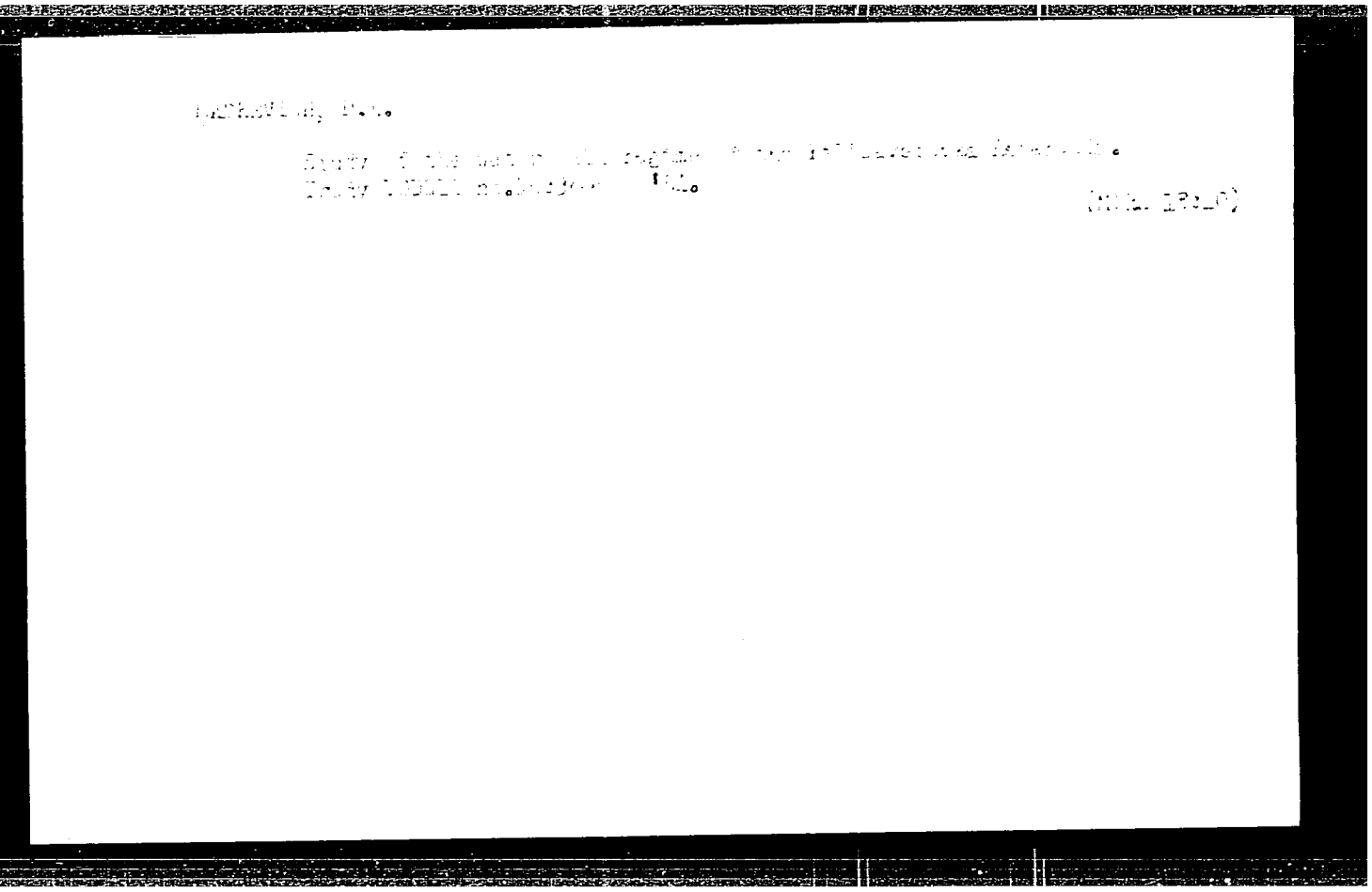
RADKEVICH, B.L., inzh.

Shrinkage and creep of compressed keramzit concrete elements.
Bet.i zhel.-bet. no.8:364-369 Ag '61. (MIRA 14:8)
(Lightweight concrete--Testing)

IVANOV-DYATLOV, Ivan Gavrilovich, doktor tekhn. nauk, prof.; AGEYEV, Dmitriy Nikolayevich; ZVEREV, Sergey Aleksandrovich; KONOVALOV, Stepan Vasil'yevich; KURASOVA, Galina Panteleymonovna; POCHTOVIK, Gennadiy Yakovlevich; RADKEVICH, Boris Leonardovich; SHCHEKANENKO, Rostislav Arkad'yevich; GORLOVA, N.B., red.; BODANOVA, A.P., tekhn. red.

[Using claydite concrete in road and bridge construction] Primenenie keramzitobetona v dorozhno-mostovom stroitel'stve. [By] I.G.Ivanov-Diatlov i dr. Moskva, Avtotransizdat, 1963. 271 p. (MIRA 16:12)

(Lightweight concrete) (Bridges, Concrete) (Pavements, Concrete)



BRYUZGINA, G.; GAYEVOY, Ye., kand.sel'skokhoz.nauk; DINARIYEVA, G.; RADKEVICH, D.; TRUDOLYUBOVA, Ye.; MASHKOV, V., kand.sel'skokhoz.nauk; PANYUKIN, I., kand.tekhn.nauk. [deceased]

New methods of preservation of fur and garment sheep pelts and mechanization of their processing. Mias.ind.SSSR 33 no.5:15-21 '62. (MIRA 15:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut myasnoy promyshlennosti (for Bryuzgina, Gayevoy, Dinariyeva, Radkevich, Trudolyubova). 2. Nauchno-issledovatel'skiy institut mekhovoy promyshlennosti (for Mashkov, Panyukin).
(Hides and skins) (Assembly-line methods)

VIRNIK, D.I., starshiy nauchnyy sotrudnik; ARTEMOVA, N.N., mladshiy nauchnyy sotrudnik; RADKEVICH, D.P., mladshiy nauchnyy sotrudnik; SEROCHKINA, V.P., mladshiy nauchnyy sotrudnik; KUZNETSOV, V.P., mladshiy nauchnyy sotrudnik; TRUDOLYUBOVA, G.B., mladshiy nauchnyy sotrudnik; SPIRIN, Ye.T., starshiy inzh.

Development of a new technology and mechanized continuous production line for the manufacture of edible gelatin from collagen-containing pigskins. Trudy VNIIMP no.15: 84-94 '63. (MIRA 17:5)

GAYEVOY, Ye.V., kand. sel'skokhoz. nauk, PANYUKIN, I.I., kand. tekhn. nauk; MASHKOV, A.N., kand. sel'skokhoz. nauk; DINARIYEVA, G.P., mladshiy nauchnyy sotrudnik, TRULOLYUBOVA, G.B., mladshiy nauchnyy sotrudnik; RALKEVICH, L.P., mladshiy nauchnyy sotrudnik; BRYUZGINA, G.A., mladshiy nauchnyy sotrudnik

Use of formaldehyde compounds for the conservation of fur and garment sheepskins. Trudy VNIIMP no.15:24-43 '63. (MIRA 17:5)

GAYEVOY, Ye.V., kand. sel'skokhoz. nauk, VASSERMAN, B.A. inzhener-tekhnolog; RADKEVICH, D.P., starshiy inzhener; TRUDOLYUBOVA, G.B., mladshiy nauchnyy sotrudnik; BRYUZGINA, G.A., mladshiy nauchnyy sotrudnik; GEGUZINA, I.Yu., mladshiy nauchnyy sotrudnik; BLYANSKAYA, N.V., tekhnik

New method for the conservation treatment of raw leather in a mobile apparatus. Trudy VNIIMP no.15:67-78 '63. (MIRA 17:5)

[illegible] Ye.Ye., kand. sel'skokhoz. nauk; DINARIYEVA, [illegible], mladshiy nauchnyy sotrudnik; TRUBCHYUBOVA, G.B., mladshiy nauchnyy sotrudnik; PAL'KEVICH, L.K., mladshiy nauchnyy sotrudnik; BRYUZGINA, G.A., mladshiy nauchnyy sotrudnik

Efficiency of the use of formaldehyde compounds for the conservation of fur and coat sheepskins during long storage of the raw materials. Trudy VNIIMS no.[illegible] 1963.
(MIRA [illegible])

RADKEVICH, F.A.

Reducing the percentage of discards is an important potential for an increase in metal production. Metallurg no.6:1-3 Je '56. (MLRA 9:9)

1.Nachal'nik Glavnoy inspektsii po kachestvu produktsii Ministerstva chernoy metallurgii SSSR.
(Rolling (Metalwork))

RADKEVICH, I.

Developing the raw material supply of cement industries.
Stroi. mat. 2 no.11:16-19 N '56. (MLRA 10:2)

1. Glavnyy gornyy inzhener Glavzapadtsementa.
(Cement industries)

[illegible], [illegible], [illegible], J. J., and [illegible], Z. J.

"A neutron selector with the mechanical interrupter," a paper prepared at the Atoms for Peace Conference, Geneva, Switzerland, 1955

RADKEVICH, I. A. : "An analysor of flighttime for a neutron spectrometer, and an investigation of the complete cross sections of certain elements in the energy range 0.5-500 electron volts." Acad Sci USSR. Moscow, 1956 (Dissertation for the Degree of Candidate in Physicomathematical Science)

Source: Knizhnaya letopis' No. 26 1956 Moscow

VLADIMIRSKIY, V.V.; RADKEVICH, I.A.; SOKOLOVSKIY, V.V.

[Neutron spectrometer with a mechanical beam chopper] Neitronnyi spektrometr s mekhanicheskim preryvatelem. Moskva, 1955. 32 p. (MIRA 14:7)

(Spectrometer) (Neutrons)

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1602
AUTHOR RADKEVIČ,I.A., VLADIMIRSKIJ,V.V., SOKOLOVSKIJ,V.V.
TITLE The Measuring of the Total Cross Sections of Pd,Os,Ir,Mo,In,J,Ta, Th, U^{238} for Resonance Neutrons.
PERIODICAL Atomnaja Energija, 1, fasc.5, 55-70 (1956)
Issued: 1 / 1957

Working out of results: The energies of the neutrons were measured by the method of flying-through time. The parameters of the levels were determined from the measured penetrability curves of samples of different thickness according to the "area" method. From the course of the experimental curve it is possible to determine the neutron width Γ_n by making use of the interference effect.

Results: Palladium: The levels at 13,25 and 32 eV were treated according to the method of the "surface of two samples". The resonance width determined from and averaged over the resonances 13 and 32 eV amounted to (220 ± 63) mV and was then used for the computation of the other levels. As palladium is an element with several isotopes, the unknown relative weights of the isotopes go into the results. Osmium: The radiation width Γ_γ for the levels at 10,3; 18,8 and 22 eV was determined. The average width of these levels is 67 mV and this value was used for the computation of the other levels. The data for all investigated resonances are shown in a table. The authors, moreover, observed levels at 109, 125, 144, 166 (weak), 208 and 333 eV. Indium: The authors were able to

RADKEVICH, I.A.

5-Rm
1-gwm
1-4E4C

Neutron spectrometer. I. Mechanical beam chopper. V. V. Sokolov-skiĭ, V. V. Vladimirskiĭ, and I. A. Radkevich. *Pribory i Tekh. Eksperimenta* 1956, No. 2, 6–8.—The construction of a mech. chopper for neutron beams is described, for beams which come out of a nuclear reactor. This chopper permits obtaining neutron impulses of approx. a triangular form with a width and a base of approx. 1 microsec. The app. can be used to investigate neutron spectra in the energy region from thermal neutrons up to several e.kv. II. Analyzer of the time of flight. I. A. Radkevich, V. V. Vladimirskiĭ, and V. V. Sokolovskiĭ. *Ibid.* 9–18.—There is described a 256-channel analyzer with delayed coincidence with a min. channel width of 10^{-6} sec., which permits the registration of various coincidences for 1 cycle. Werner Jacobson

Rm.1
MT

INSTRUMENTATION: SPECTROMETERS

"Neutron Spectrometer. II. Time of Flight Analyzer", by I.A. Radkevich, V.V. Vladimirskiy, and V.V. Sokolovskiy, Pribory i Tekhnika Eksperimenta, No 2, September-October 1956, pp 9-18.

Description of a 256-channel analyzer of delayed coincidences with minimum channel width of 10^{-6} seconds. This permits recording of several coincidences per cycle.

Card 1/1

PANOV, A.A., RADKEVICH, I.A., SOKOLOVSKIY, V.V., VLADIMIRSKIY, V.V.
(Acad. Sci. USSR)

"Interactions of Slow Neutrons with Nuclei" (review lectured)

paper submitted at the A-U Conf. on Nuclear Reactions in Medium and Low Energy Physics, Moscow, 19-27 Nov 57.

RADKEVICH, I. A.

"Measurements of the Total Effective Cross Sections of U^{233}, U^{235}, and Pu^{239} and the Fission Cross Section of U^{235} for Resonance Neutrons," by V. V. Sokolovskiy, V. V. Vladimirskiy, I. A. Radkevich, and A. A. Panov, Atomnaya Energiya, Vol 2, No 2, Feb 57, pp 129-139

This work presents measurements of the total cross sections of U^{233}, U^{235}, and Pu^{239} and the fission cross section of U^{235}.

Measurements were made with a mechanical neutron spectrometer having a resolving power of 0.1-0.2 microsecond/meter for neutron energies from 3-5 to ~500 ev. The resonance parameters are computed up to energies of 30-50 ev "beyond which the levels are not resolved."

Neutron widths are determined for the levels; the total widths are determined "for sufficiently strong levels where the error in determining the widths was not greater than ~50%."

SUM. 1345

RADKEVICH, I. A.

The ratio of fission width to total width was determined for U^{235} resonances in the 2.5-20 ev energy range.

The article states that the results of the experiments may be utilized for calculating reactors and constructing various models of the nucleus.

Wu Ch'i-k'ua and San Ch'i-lin did the mathematics for the research, and A. S. Kronrod developed the statistical methods used.

Acknowledgement was made to Dr D. J. Hughes and Dr P. A. Eaglestaff "for making it possible for us to compare our results with unpublished data of Brookhaven National Laboratory and the laboratory at Harwell...." (U)

SUM. 1345

VLADIMIRSKIJ, V.V. [Vladimirskiy, V.V.]; PANOV, A.A.; RADKEVIC, I.A. [Radkevich, I.A.]; SOKOLOVSKIJ, V.V. [Skolovskiy, V.V.]

Interaction of slow neutrons with nuclei. Jaderna energie 3 no.11:370-384 N '57.

AUTHORS: Vladimirskiy, V.V., Panov, A.A., Radkevich, I.A., 89-11-7/9
Sokolovskiy, V.V.

TITLE: The Interaction of Slow Neutrons with Nuclei.Review.(Vzaimodeystviye meddlennykh neytronov s yadrami.Obzor)

PERIODICAL: Atomnaya Energiya, 1957, Vol. 3, Nr 11, pp. 444-458 (USSR)

ABSTRACT: Everything known from more than 1oo Russian and foreign original works on the interaction between slow neutrons and nuclei is shortly discussed here. The following items are discussed in particular:
Different velocity selectors.
Multichannel impulse analyzers.
Neutron spectrometers.
Comparison between the experimentally found and theoretically calculated widths of the neutron resonance levels. Determination and comparison of the level widths of the fission resonances.
The following data are given on large neutron meters at present in operation in the USSR:

Site	Δt μs	L M	Δt/L μs/M	Note
a) crystal spectrometer				
Pyrometric Laboratory		1		curved quartz crystal with the planes(134o) and (1o1o)
b) neutron selectors on accelerators				

Card 1/2

The Interaction of Slow Neutrons with Nuclei.Review. 89-11-7/9

Pyrometric Laboratory	2	16	o,12	cyclotron
	c) mechanical interrupter			
Institute for Atomic Energy	5	6,3	o,8	transverse rotor
"	3,2	26,5	o,12	longitudinal rotor
Pyrometric Institute	1,3	19	o,o7	transverse rotor.

There are 16 figures, 2 tables and 1o9 references, 3o of which are Slavic.

AVAILABLE: Library of Congress.

Card 2/2

RADKEVICH, I. A.

THE TOTAL EFFECTIVE CROSS-SECTIONS OF U^{235}, U^{238}, Pu^{239} AND THE FISSION CROSS-SECTION OF U^{235} IN THE RESONANCE REGION. V. V. Sokolovsky, V. V. Vladimir-sky, I. A. Radkevich, and A. A. Panov. J. Nuclear Energy 5, 389-401(1957).

Радкевич, И. А.

AUTHORS: Vladimirskiy, V. V., Panov, A. A., Radkevich, I. A., Sokolovskiy, V. V. SOV/89-5-1-8/28

TITLE: Measurement of the Fission Cross Section of U^{233} and of the Total Cross Section of Arsenic, Vanadium, Tantalum, and Bismuth (Izmereniye secheniya deleniya U-233 i polnykh effektivnykh secheniy mysh'yaka, vanadiya, tantala i vismuta)

PERIODICAL: Atomnaya energiya, 1958, Vol. 5, Nr 1, pp. 69-70 (USSR)

ABSTRACT: Cross sections were measured by means of a neutron spectrometer with mechanical selector (as described by reference 1):

1.) Resonance parameter of U^{233}.

E_o, eV	1,47	1,78	2,23	3,6	4,5	6,8	10,4	12,7	15,4	+)
$\sigma_o \Gamma_f$ in b.eV	60±15	195±15	58±4	13±6	4,0±1,5	73±8	135±12	103±8	41±4	++)

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Measurement of the Fission Cross Section of U^{233} and of the Total Cross Section of Arsenic, Vanadium, Tantalum, and Bismuth

SOV/89-5-1-8/28

Γ_f in mV	-	-	-	-	-	57±30	260±130	330±200	-	+++)
+)	16,4	19,0								
++)	96±15	90±9								
+++)	75±50	105±40								

2.) No resonance was found in vanadium between 10 and 100 eV.
3.) The resonance in tantalum at 35 and 39 eV is not a doublet but only 1 level at 35 eV.
4.) In bismuth resonances were found at 800, 2300, and possibly also at 3100 eV. The following parameters were calculated for the 800 eV resonance: $\Gamma = 10 \pm 3$ eV, $\Gamma_\gamma = 7 \pm 5$ eV, $\Gamma_n = 3 \pm 2$ eV. There are 2 tables and 10 references, 5 of which are Soviet.

SUBMITTED: July 25, 1957

Card 2/3

Measurement of the Fission Cross Section of U^{233} and of the Total Cross Section of Arsenic, Vanadium, Tantalum, and Bismuth

SOV/89-5-1-8/28

1. Uranium--Fission 2. Arsenic--Properties 3. Vanadium--Properties 4. Tantalum--Properties 5. Bismuth--Properties 6. Neutron cross section --Measurement

Card 3/3

81992

S/120/60/000/03/025/055
E041/E521

9,6000; 21,5300

AUTHORS: Sokolovskiy, V.V., Rukolayne, G.V., Radkevich, I.A. and Rezvyakov, N.S.

TITLE: High Resolution Counting Circuits

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, No 3, pp 92-93

ABSTRACT: Two counters are described which are very stable and are used in multichannel time-of-flight analysers. Fig 1 shows a binary unit based on the 6Zh9P valve including driver and output stages. The driving pulse amplitude must lie between 8 and 10 volts and last 0.1 μsec. The rise time is about 0.02 μsec and the delay is exponential. The upper frequency limit is 7 Mc/s. The correcting inductances shown are wound over standard high-value resistances. Fig 2 is a simpler circuit using 6N6P valves. Anode triggering is used at -40 volts. Operation is stable against a 20-25% variation in all parameters. The resolving time is about 0.3 μsec. The upper frequency limit is at least 1 Mc/s. The output voltage is a 110-120 V pulse. The triggering voltage

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E041/E521

High Resolution Counting Circuits

may be reduced to 20 V if a resolution of 1 μsec is acceptable. If the cathode resistance is increased to 8 kilohms, 6N1P valves may be used, giving a 2 μsec resolution. There are 2 figures.

SUBMITTED: April 29, 1959

Card 2/2

RADKEVICH, I.A.; REZVYAKOV, N.S.; SOKOLOVSKIY, V.V.

Diode amplitude limiter. Prib. i tekh. eksp. no.3:95-96 My-Je '60. (MIRA 14:10)
(Electronic instruments)

RADKEVICH, I.A.; SOKOLOVSKIY, V.V.; REZVYAKOV, N.S.

Reducing the coating background of a magnetic drum. Prib. i tekh. eksp. no.3:144 My-Je '60. (MIRA 14:10)
(Magnetic memory (Calculating machines))

RADKEVICH, I.A.; TALYZIN, A.N.

Annealing permalloy pickups. Prib. i tekh.eksp. 6 no.4:169-170 Jl-Ag '61. (MIRA 14:9)
(Alloys--Heat treatment)

RADKEVICH, I. A.

S/120/62/000/004/030/047
E140/E420

AUTHORS: Kulakov, F.M., Kardash, A.A., Bobovikov, R.S., Spevakova, F.M., Gol'din, L.L., Kleopov, I.F., Koshkarev, D.G., Radkevich, I.A., Sokolovskiy, V.V., Sharnov, B.I.

TITLE: The system for magnetic field correction of the proton synchrotron

PERIODICAL: Pribory i tekhnika eksperimenta, no.4, 1962, 158-167

TEXT: The magnetic field configuration in the strong-focused 7 Gev machine is adjusted by a series of correction systems permitting the betatron oscillation frequency to be controlled and resonance disturbances of the orbit to be eliminated. The system used for field correction is described together with the system for switching and exciting the windings, with experimental data on their effect on the beam. The windings permit adjustment of the magnetic field decay index, the azimuthal asymmetry of the field, compensation of the nonlinear distortion of the field with saturation, correction of the position of the neutral plane and the differences between the focusing and

Card 1/2

defocusing groups of blocks. There are two sets of these windings, the "gradient" and the "nonlinear" windings on the magnetic pole surfaces facing the chamber. Measured data presented in the article indicate the effectiveness of the corrections in stabilizing the betatron frequency. However, it is considered that further adjustments will be made in the course of the work. There are 15 figures.

ASSOCIATIONS: Institut teoreticheskoy i eksperimental'noy fiziki GKAE (Institute of Theoretical and Experimental Physics GKAE)
Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury GKAE (Scientific Research Institute for Electrophysical Apparatus GKAE)

SUBMITTED: March 29, 1962

S/120/62/000/004/034/047
E140/E420

AUTHORS: Talyzin, A.N., Gol'din, L.L., Trokhachev, G.V., Radkevich, I.A., Mozalevskiy, I.A., Sokolovskiy, V.V., Kukavadze, G.M., Belozerova, L.A., Borisov, V.S., Bysheva, G.K., Veselov, M.D., Goryachev, Yu.M.

TITLE: Investigation and correction of the magnetic characteristics of the proton synchrotron C-blocks at small fields

PERIODICAL: Pribory i tekhnika eksperimenta, no.4, 1962, 184-192

TEXT: Comparative measurements are made on the C-blocks in the residual field (~35 Oe) the injection field (87 Oe) and the field at the beginning of the acceleration cycle (117 Oe). The iron for the magnet blocks was not pre-selected. This had no substantial effect on differences in the dynamic characteristics of the C-blocks, but the differences in residual field constituted 4.25% on the average and reached up to 10%. The mean-square deviation of the magnetic induction was 4.25%, and 1.4% in the injection field, thus exceeding by far the allowable tolerances. The variations were compensated by shunt resistances

Card 1/2

and by changing the order of the blocks. The present article is concerned with the measurement of the magnetic field intensity and its gradient in the residual field, the compensation by resistances connected across compensation windings, compensation of C-blocks at injection, with investigation of the dynamic characteristics. The equilibrium orbit in the synchrotron has not yet been studied in detail but it is found that either as a result of these corrections or the arrangement of the blocks, the loss of particles is fairly small. There are 7 figures and 1 table.

ASSOCIATIONS: Institut teoreticheskoy i eksperimental'noy fiziki GKAE (Institute of Theoretical and Experimental Physics GKAE)
Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury GKAE (Scientific Research Institute for Electrophysical Apparatus GKAE)

SUBMITTED: March 31, 1962

S/120/62/000/004/035/047
E192/E382

AUTHORS: Luzin, V.N., Radkevich, I.A. and Sokolovskiy, V.V.

TITLE: An instrument for continuous measurement and recording of slowly-changing magnetic fields

PERIODICAL: Pribory i tekhnika eksperimenta, no. 4, 1962, 192 - 196

TEXT: A block schematic of the instrument is shown in Fig. 1. A permalloy pick-up (K.N. Shorin, Yu.N. Metal'nikov, G.M. Bozin and L.V. Yeremin, PTE, no. 4, 1958, 25) consisting of a thin permalloy wire 2 is situated inside a balancing coil 1 ; a signal coil 3 is also wound on the permalloy wire. The pick-up is situated inside an alternating magnetic field produced by means of an audio-generator 5 by using an additional coil 4 ; the field has an amplitude of 5 Oe and a frequency of 10 kc/s. The signal from the pick-up is applied to an electronic-control system 6 , whose output voltage controls an automatic potentiometer 7 , the balancing coil 1 being connected into the slide-wire circuit of the potentiometer. The balancing current of the coil 1 is controlled by the

S/120/62/000/004/035/047
E192/E382

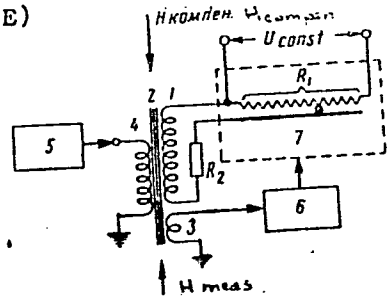
An instrument for ....

potentiometer and the balancing field is made equal to the measured field. A detailed description of the electronic-control circuit is given. The potentiometer is a laboratory instrument, type БП-102 (BP-102 TsLA). The instrument can measure the field with an error of ± 0.03 Oe. If its full-scale deflection is 4.5 Oe, the instrument can record fields varying at a rate of less than 4.5 Oe/sec. There are 5 figures.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki GKAE (Institute of Theoretical and Experimental Physics, GKAE)

SUBMITTED: September 26, 1961

Fig. 1:



Card 2/2

S/120/62/000/004/036/047
E039/E420

AUTHORS: Luzin, V.N., Radkevich, I.A., Sokolovskiy, V.V.

TITLE: The change in field in C-magnets of the proton synchrotron after the completion of cycle

PERIODICAL: Pribory i tekhnika eksperimenta, no.4, 1962, 196-199

TEXT: The magnetic field in the interval between cycles is measured by means of a self-recording magnetometer using a permalloy probe. The operation of the magnetometer is based on automatic compensation of the measured fields. A description of the instrument is given. At a given moment of time t the measured value of the field B(t) is given by

$$B(t) = k_d I_d + kI(t) \qquad (1)$$

where k_d, k, I_d and I correspond to calibration coefficients and currents in the auxiliary and compensating coils of the probe. Experimentally determined values of coefficients are k_d = 0.4256 gauss/mA $\pm$ 0.02% and k = 0.54 gauss/mA $\pm$ 0.2%. In order to measure the field at one point 5 to 10 cycles are required. An account of the method of measurement is given.

Card 1/2

S/120/62/000/004/036/047
E039/E420

The change in field in ...

It is shown that the value of

$$\Delta = \frac{B_{10} - B_{res}}{B_{res}} \cdot 100\%$$

varies with the azimuthal distance ℓ from the centre of the magnet block. B_{10} is the value of the field immediately before the beginning of a cycle when the cycling rate is 10 cycles/min. B_{res} is the residual field. At the edge of the magnet $\Delta \sim +4.5\%$ and decreases practically to zero at the centre. With an increase in the maximum field in the cycle B_{res} and B_{10} decrease, the new value being established after 15 to 20 cycles. The mean square of the scatter of B_{10} from cycle to cycle does not exceed 0.04 gauss at the edge of the magnet and is less at the middle. The dependence of the field on cycling rate is also investigated. There are 2 figures.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki GKAE (Institute of Theoretical and Experimental Physics GKAE)

SUBMITTED: March 31, 1962

Card 2/2

RADKEVICH, I. A.

S/120/62/000/004/042/047
E140/E420

AUTHORS: Barmin, V.V., Bysheva, G.K., Tumanov, G.K., Agapkin, I.I., Andreyev, V.N., Veselov, M.A., Gol'din, L.L., Luzin, V.N., Radkevich, I.A., Sokolovskiy, V.V., Stadnikov, A.G.

TITLE: Investigation and correction of the horizontal component of the low-induction magnetic field of the proton synchrotron

PERIODICAL: Pribory i tekhnika eksperimenta, no.4, 1962, 223-229

TEXT: Permalloy probes modulated at 10 kcs were used to measure the position of the neutral plane of the magnetic field. It was found that the distortion of the neutral plane in the residual field was determined mainly by the neutral pole. This distortion decreased as the excitation of the C-blocks was increased. Due to hysteresis effects, the measurements had to be carried out under operating conditions. A description of the probe and its associated circuits is given. The measurements show that 67 of the maghets have a deviation of the neutral plane in the range ± 0.5 mm, 16 magnets have 0.5 to 0.6 mm, 3 magnets 0.6 to 0.7 mm

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and 12 magnets $\geq$ 0.7 mm. The average error of measurement is $\pm$ 0.17 mm. The method of correcting the neutral plane errors by means of windings on the neutral poles is described. There are 11 figures.

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